

AMENDMENT TO THE CLAIMS:

Claims 1-33 (cancelled)

34. (Previously presented) Isolated nucleic acid encoding Apo-3 polypeptide comprising amino acid residues 1 to 417, 25 to 417, 25 to 198, or 338 to 417 of SEQ ID NO:6, or a biologically active variant thereof.

35. (Original) The nucleic acid of claim 34 wherein said nucleic acid encodes native sequence Apo-3 comprising amino acid residues 1 to 417 of SEQ ID NO:6.

36. (Original) A vector comprising the nucleic acid of claim 34.

37. (Original) The vector of claim 36 operably linked to control sequences recognized by a host cell transformed with the vector.

38. (Original) A host cell comprising the vector of claim 36.

39. (Currently amended) A process of ~~using a nucleic acid molecule encoding producing Apo-3 polypeptide to effect production of Apo-3~~ comprising culturing the host cell of claim 38 and isolating said polypeptide.

Claims 40-45 (cancelled)

46. (Previously presented) An isolated nucleic acid molecule comprising a polynucleotide encoding amino acids 19 to 204 of SEQ ID NO:6.

47. (Previously presented) The isolated nucleic acid molecule of claim 46 which comprises nucleotides 146 to 700 of SEQ ID NO:9.

48. (Previously presented) The isolated nucleic acid molecule of claim 46 further comprising a heterologous polynucleotide.

49. (Previously presented) The isolated nucleic acid molecule of claim 48, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

50. (Previously presented) A vector comprising the isolated nucleic acid molecule of claim 46.

51. (Previously presented) A host cell comprising the isolated nucleic acid molecule of claim 46 operatively associated with a heterologous regulatory sequence.

52. (Previously presented) A method for making a vector comprising inserting an isolated nucleic acid molecule of claim 46 into a vector.

53. (Previously presented) A method of making a host cell comprising introducing the vector of claim 50 into a host cell.

54. (Previously presented) A host cell produced by the method of claim 53.

55. (Previously presented) A method for producing a polypeptide encoded by said isolated nucleic acid molecule, comprising culturing the host cell of claim 51 under conditions such that said polypeptide is expressed and recovering said polypeptide.

56. (Previously presented) A host cell comprising the isolated nucleic acid molecule of claim 46.

57. (Previously presented) A method for producing a polypeptide encoded by said isolated nucleic acid molecule, comprising culturing

the host cell of claim 56 under conditions such that said polypeptide is expressed and recovering said polypeptide.

58. (Previously presented) An isolated nucleic acid molecule comprising a polynucleotide encoding a polypeptide having the mature amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 55820.

59. (Previously presented) The isolated nucleic acid molecule of claim 58, wherein said polynucleotide encodes a polypeptide having the complete amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 55820.

60. (Previously presented) The isolated nucleic acid molecule of claim 58 further comprising a heterologous polynucleotide.

61. (Previously presented) The isolated nucleic acid molecule of claim 60, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

62. (Previously presented) A vector comprising the isolated nucleic acid molecule of claim 58.

63. (Previously presented) A host cell comprising the isolated nucleic acid molecule of claim 58 operatively associated with a heterologous regulatory sequence.

64. (Previously presented) A method for making a vector comprising inserting an isolated nucleic acid molecule of claim 58 into a vector.

65. (Previously presented) A method of making a host cell comprising introducing the vector of claim 62 into a host cell.

66. (Previously presented) A host cell produced by the method of claim 65.

67. (Previously presented) A method for producing a polypeptide encoded by said isolated nucleic acid molecule, comprising culturing the host cell of claim 63 under conditions such that said polypeptide is expressed and recovering said polypeptide.

68. (Previously presented) A host cell comprising the isolated nucleic acid molecule of claim 58.

69. (Previously presented) A method for producing a polypeptide encoded by said isolated nucleic acid molecule, comprising culturing the host cell of claim 66 under conditions such that said polypeptide is expressed and recovering said polypeptide.

70. (Previously presented) An isolated nucleic acid molecule encoding a polypeptide comprising at least 30 contiguous amino acids of a polypeptide having the amino acid sequence from 339 to 409 in SEQ ID NO:6, or a nucleic acid molecule having a nucleotide sequence complementary thereto.

71. (Previously presented) The isolated nucleic acid molecule of claim 70 wherein said polypeptide comprises at least 50 contiguous amino acids of a polypeptide having the amino acid sequence from 339 to 409 in SEQ ID NO:6.

72. (Previously presented) The isolated nucleic acid molecule of claim 70 comprising a polynucleotide encoding amino acids 339 to 409 of SEQ ID NO:6.

73. (Previously presented) The isolated nucleic acid molecule of claim 70 further comprising a heterologous polynucleotide.

74. (Previously presented) The isolated nucleic acid molecule of claim 73, wherein said heterologous polynucleotide encodes a heterologous polypeptide.

75. (Previously presented) A vector comprising the isolated nucleic acid molecule of claim 70.

76. (Previously presented) A host cell comprising the isolated nucleic acid molecule of claim 70 operatively associated with a heterologous regulatory sequence.

77. (Previously presented) A method for making a vector comprising inserting an isolated nucleic acid molecule of claim 70 into a vector.

78. (Previously presented) A method of making a host cell comprising introducing the vector of claim 75 into a host cell.

79. (Previously presented) A host cell produced by the method of claim 78.

80. (Previously presented) The host cell of claim 76 wherein said isolated nucleic acid molecule encodes a polypeptide comprising at least 30 contiguous amino acids from residues 339 to 409 in SEQ ID NO:6.

81. (Previously presented) A method for producing a polypeptide comprising culturing the host cell of claim 80 under conditions such that the polypeptide encoded by said nucleic acid molecule is expressed and recovering said encoded polypeptide.

82. (Previously presented) A host cell comprising the isolated nucleic acid molecule of claim 70.

83. (Previously presented) The host cell of claim 82, wherein said isolated nucleic acid molecule encodes a polypeptide comprising at least 30 contiguous amino acids from residues 339 to 409 in SEQ ID NO:6.

84. (Previously presented) A method for producing a polypeptide comprising culturing the host cell of claim 82 under conditions such that the polypeptide encoded by said nucleic acid molecule is expressed and recovering said encoded polypeptide.

85. (Previously presented) Isolated nucleic acid encoding an Apo-3 polypeptide, wherein said Apo-3 polypeptide has about 80% identity to the sequence of amino acid residues 1 to 417 of SEQ ID NO:6 and said Apo-3 polypeptide inhibits or stimulates apoptosis or NF-KB in at least one type of mammalian cell.

86. (Previously presented) The nucleic acid of claim 85, wherein said encoded Apo-3 polypeptide has about 90% identity to the sequence of amino acid residues 1 to 417 of SEQ ID NO:6.

87. (Previously presented) The nucleic acid of claim 86, wherein said encoded Apo-3 polypeptide has about 95% identity to the sequence of amino acid residues 1 to 417 of SEQ ID NO:6.

88. (Previously presented) A vector comprising the nucleic acid of claim 85.

89. (Previously presented) A host cell comprising the vector of claim 88.

90. (Previously presented) A process of using a nucleic acid molecule encoding Apo-3 to effect production of Apo-3 comprising culturing the host cell of claim 89.

91. (Previously presented) Isolated nucleic acid encoding an Apo-3 polypeptide, wherein said Apo-3 polypeptide (a) is a fragment of the sequence of amino acid residues 1 to 417 of SEQ ID NO:6, (b) lacks a transmembrane domain and/or cytoplasmic domain of native sequence human Apo-3 polypeptide, and (c) inhibits or stimulates apoptosis or NF-KB in at least one type of mammalian cell.

92. (Previously presented) A vector comprising the nucleic acid of claim 91.

93. (Previously presented) A host cell comprising the vector of claim 92.

94. (Previously presented) A process of using a nucleic acid molecule encoding Apo-3 to effect production of Apo-3 comprising culturing the host cell of claim 93.